WAQTC QAC COMMITTEE SUMMER MEETING MINUTES

CHAIR: SEAN PARKER, ODOT **COORDINATOR:** DESNA BERGOLD, D B CONSULTING	**DATE:** JULY 6TH THROUGH THE 9TH, 2020 **TIME:** 8:30 AM TO 3:00 PM PDT **LOCATION:** MEET.GOOGLE
ATTENDEES: SEAN PARKER, ODOT, CHAIR MISTY MINER, MDOT, VICE CHAIR DAN GETTMAN, AKDOT & PF CHRISTOPHER RUSSELL, CDOT LORI COPELAND, ITD SHARON TAYLOR, NDDOT GILBERT ARREDONDO, UDOT KEVIN BURNS, WSDOT RANDY MAWDSLEY, WSDOT SONYA PUTERBAUGH, AASHTO RE:SOURCE	**ABSENT:** BRIAN IKEHARA, HDOT AARON COENEN, FHWA

MEETING ITEMS:

REVIEWS OF AASHTO REVISIONS AND QAC PROPOSED REVISIONS FOR EACH PROCEDURE

1. Revision to Embankment/Base and In-Place Density Field Operating Procedures
    a. T 255/T 265, Moisture Content of Aggregate and Soil
        i. Remove the term 'dry' from M_n in constant mass determination
        ii. Put M_W and M_D in Steps 4 and 16
    b. T 99/T 180, Moisture/Density Relations
        i. Add 'mandatory information' to Annexes – Desna
        ii. T 180 AASHTO revision – precision statement
    c. R 75, Developing a Family of Curves
    d. T 272, One-Point Method
    e. T 85, G_{sb}
        i. Sample Prep Step 5 add FOP for T 255/T 265
        ii. Step 7 add temperature range – winter meeting
        iii. Balance – sensitive to 1 g, masses are determined to 0.1 g – Desna
    f. Humphres
        i. Replace with an overview of TM 15 and TM 20? – Desna
    g. T 310, In-place Density and Moisture Content of Soil-Aggregate
    h. T 355, In-place Density of Asphalt Mixtures
    i. Exams

i. Scale of R 75 PR exam keys – Dan
ii. Ex 2 q 15 questionable point – Lori
iii. Ex 1 R 75 q. 3 – correct grammar in Answer A – Chris
iv. Ex 1 T 272 q. 16 – confusing language – Chris
v. Ex 2 q. 6 – suggested revision – Chris
vi. Ex. 3 R 75 q. 3 – confusing – Chris
vii. Ex 3 T 272 q. 3 – two possible answers – Chris
viii. Ex 3 T 310 q. 3 – revise language – Chris

j. PowerPoint

2. Revision to Concrete Field Operating Procedures
   a. TM 2, Sampling Concrete
      i. Define sampling receptacle – Sean
      ii. Should wet sieving be an annex?
   b. T 309, Temperature
      i. Remove or move large aggregate statement
   c. T 119, Slump
   d. T 121, Density
      i. Reorder the steps - Misty
   e. T 152, Air Content
      i. Reorder the steps – Misty
      ii. PowerPoint steps missing – Misty
   f. T 23, Test Specimens
      i. Reorder the steps - Misty
   g. Exams
   h. PowerPoint
3. Revision to Aggregate Field Operating Procedures
   a. R 90, Sampling Aggregate Products
      i. Remove Note 3 – Sean
      ii. Revise Note 1 to reference Table 1 of T 11/T 27 – Sean
   b. R 76, Reduction (6/26)
      i. Figure 1 revision – Steve
      ii. Method selection 'dried to SSD' – Misty
   c. T 255, Moisture Content of Aggregate
      i. Remove the term 'dry' from M_n in constant mass determination
      ii. Put M_W and M_D in Steps 4 and 16
   d. T 11/T 27, Sieve Analysis
      i. Step 12 indicates the sample is washed, Step 1 gives the option
      ii. T 11 AASHTO revision, mechanical washing apparatus and new Note 1
      iii. T 27 AASHTO revision, Annexes – add Annex B reference in procedures
      iv. Swap Annexes?
   e. T 335, Fractured Particles
      i. Notes 1 and 2 do not clearly indicate when the sample is washed – Steve
   f. T 176, Sand Equivalent
      i. Sample size revision to agree with AASHTO – from Winter meeting
   g. Exams
      i. Ex 1 and 2, q 21 'retained to' – Misty
   h. PowerPoint
4. Revision to Asphalt I Field Operating Procedures
   a. R 97, Sampling Asphalt Mixtures
      i. Safety statement – Winter meeting – Sean
      ii. Figure referencing – Sean

iii. Plate on grade not just UTBC – Steve
iv. Paver pass over the plate then locate wire – Misty

b. R 47, Reducing
i. Quartermaster – Kevin

c. T 329, Moisture Content
i. Delete Note 1 – Sean

d. T 308, Asphalt Content
i. Add step to zero balance – Steve
ii. Step 13 Add correction factor if not entered into oven – Steve
iii. Step 13 Add 'If allowed by agency' in the last sentence – Steve
iv. Annex correction factors – delete Paragraph 3 – Steve
v. Table 1 – use AASHTO Table – Dan

e. T 209, G_{mm} (6/24)
i. Apparatus – water bath not optional for bowl method – Kevin
ii. Manometer and vacuum gauge do not need to be NIST traceable – Kevin
iii. Standardization of pycnometer and flask does not match Annex of T 209 – Kevin
iv. Balance, container, thermometers, vacuum measurement devise do not match AASHTO – Kevin
v. 15 ± 2 min. to 15 min. ± 30 sec. – Steve
vi. Add Annex
vii. AASHTO revisions
1. Added use of cores
2. Weighted average

f. T 166, G_{mb}
i. Remove R 79 steps and replace with the FOP
ii. 'may be sampled by R 67' - Kevin

g. R 66, Sampling Asphalt Material

h. T 30, Sieve Analysis
i. Add 'mandatory information' to Annexes - Desna

i. Exams
i. Arrange sections in the same order as the manual – Misty
ii. Ex 1 and 2, q. 40, table masses are incorrect for entire sample – Dan

j. PowerPoint

5. Revision to Asphalt II Field Operating Procedures
a. T 312, Gyratory
i. Steps 8 and 9 are out of order – Steve

b. TM 13, Volumetric Properties

c. Exams
i. Arrange sections in the same order as the manual – Misty
ii. Ex 1 and 2, q. 40, table masses are incorrect for entire sample – Dan

d. PowerPoint

6. Revision to General
a. Rounding – Kevin
b. Adding Module requirement table to each module – Dan
c. Preface/Objectives – revise last bullet – Dan
d. Learning objectives – is sentence about instructional objectives necessary? – Dan
e. Course objectives and Schedule – rewrite in active voice – Dan

7. Other AASHTO revisions
a. R 67, Obtaining Cores
i. Appendix X2, removing cut aggregate

ii. Other editorial

8. Revision review assignments
9. Self-Consolidating Concrete Module
    a. Basics
    b. T 347, Slump Flow
    c. T 351, VSI
    d. T 345, J-Ring
    e. TM 18, Penetration
    f. TM 19, Column Method
10. AASHTO re:source review of exams
11. FOP Library
    a. TM, 14, Asphalt Mixture Laboratory Specimens
    b. AASHTO T 84 (5/5)
        i. Add 'mandatory information' to Annexes – Desna
    c. AASHTO T 304
        i. Add 'mandatory information' to Annex - Desna
    d. WAQTC TM 15/spreadsheet (6/21)
        i. TM 20
        ii. TM 15 discussion for the Embankment manual sent Monday.
    e. WAQTC TM 20 (6/21)
    f. AASHTO R 79, Vacuum Drying (6/25)
        i. 'may be sampled by R 67' – Kevin
    g. AASHTO T 331, G_{mb} Vacuum seal (5/5)
        i. 'may be sampled by R 67' – Kevin
12. Administration Manual proposed revisions
    a. Annex A Tables – list T 99 and T 180 the same as T 255/T 265
    b. Annex A Tables – list in order that they are in the manual
    c. Rewrite forth bullet under Objectives, this is also in General preface – Dan
    d. Include SCC qualification
13. Agencies posting outdated RPIH
14. Alternate limited qualifications (sampling and density) – Winter meeting
15. Action Item Follow up
    a. T 27 and T 30 Task Force – Sean
    b. T 113 revisions from NDDOT – Sharon
    c. T 176 figures and apparatus – Sean
    d. R 76. Alternative quartering method (Apex) – Steve, Lori, and Misty
    e. T 315 further revision – David, Sonya, and Kevin
    f. R 25
16. Report from Executive Board Spring meeting
17. Other items
    a. Certification retests
18. Location of upcoming meetings – 25th through the 29th of January 2021

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
WELCOME	Sean Parker, ODOT and Qualification Advisory Committee (QAC) Chair, welcomed the committee members. This virtual meeting will be an adjustment for everyone.	
REVIEW OF THE TRAINING MATERIALS AND REVISIONS		
EMBANKMENT/ BASE AND IN-PLACE DENSITY (E&B/IPD)		
T 255/T 265	*Field Operating Procedure (FOP) for AASHTO T 255/T 265, Moisture Content of Aggregate and Soil* <u>Proposed revisions to the training materials:</u> Desna Bergold, D B Consulting and WAQTC Coordinator, presented drafted revisions that were requested through a 'Materials Revision Request' from the WAQTC website. The request is to add the variable M_W in Procedure Step 4 where the wet mass of the sample is recorded and M_D in Step 16 where the dry mass is recorded. These variables are used in the calculation of final moisture content and are consistent with the formatting of other procedures. The requested change is approved. Also requested, remove the term 'dry' from the constant mass example when referencing the new mass measurement after a period of drying, M_n. The sample may or may not be dried at this stage. This is also approved <u>There are no revisions to the AASHTO methods in 2020.</u> <u>Revisions to the training materials include:</u> **FOP** (editorial): - Add M_W in Step 4 - Add M_D in Step 16 - Remove 'dry' from M_n in example **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 99/T 180	*FOP for AASHTO T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop* and *T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop* <u>Proposed revisions to the training materials:</u> Desna asked the committee if WAQTC should include 'Mandatory information' at the beginning of Annexes as AASHTO does. Although WAQTC follows AASHTO's convention that Annexes are mandatory and Appendixes are non-mandatory, all of the technicians may not be aware of this distinction. This revision is approved. <u>The 2020 AASHTO methods revisions:</u> The 2020 AASHTO T 180 method will be revised in Release 3 to include a precision statement. These are not usually included in WAQTC training materials. AASHTO T 180 was given a new revision date, WAQTC has established that when the AASHTO standard on which the FOPs are based has a new revision date the FOP will also receive the new revisions date. <u>Other revisions</u> Lori Copeland, ITD, pointed out that in the equations the variable D is used for density. This is not the same as other FOPs. Desna explained that WAQTC proposed that AASHTO test methods addressing density use the variable ρ (rho) in 2019. The committee determined that the FOP can be revised to use ρ to denote density even if the AASHTO test methods do not. <u>Revisions to the training materials include:</u> **FOP:** - New AASHTO date, new revision date - Use ρ to denote density in formula and example equations **Performance Exam Checklists:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
R 75	*FOP for AASHTO R 75, Developing a Family of Curves* <u>Proposed revisions to the training materials:</u> Dan Gettman, AKDOT, pointed out that in the 2019 revisions, the scale of the graph in the Performance Exam was enlarged but the answer key was not. He requests that the scale of the two be the same because this will make the exams easier to grade. This is approved. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Other revisions:</u> Lori pointed out that the formatting of the 80 percent optimum moisture calculation is different in the Student and the Short form. Although they are both correct, the committee prefers the formatting in the Short form. The calculation in the Student form will be revised editorially to match the Short form. <u>Revisions to the training materials include:</u> **FOP** (editorial)**:** - Revise formatting of the calculation in the Student form **Performance Exam Checklist:** - Revise the scale of the answer key to match the exam **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 272	*FOP for AASHTO T 272, One-point Method for Determining Maximum Dry Density and Optimum Moisture* <u>There were no revisions to the training materials proposed before the meeting.</u> <u>There are no revisions to the AASHTO method in 2020.</u> *There are no revisions for this method for the 2020 training materials.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 85	*FOP for AASHTO T 85, Specific Gravity and Absorption of Coarse Aggregate* <u>Proposed revisions to the training materials:</u> The committee identified revisions to this method during the winter meeting. In 'Sample Preparation' Step 5, the sample is dried without a reference to the method used for drying to constant mass. This step will now include, 'According to the FOP for AASHTO T 255/T 265.' In Step 7, it states to dry the sample according to 'the FOP for AASHTO T 255/T 265 (Aggregate Section).' The AASHTO method has a temperature range for this step of 110 ±5°C (230 ±9°F), the referenced Aggregate Section of the FOP for AASHTO T 255/T 265 does not specify a temperature range. The temperature range will replace the reference to the 'Aggregate Section.' Desna proposed revising the sensitivity requirements for the 'balance or scale' to 0.1 g. Currently it states 1 g. but the sample masses are determined to the 0.1 g. This is approved. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Revisions to the training materials include:</u> **FOP:** - New date - 'Balance or scale' to be sensitive to 0.1 g. - Add 'according to the FOP for AASTHO T 255/T 265' in Step 5 of 'Sample Preparation' - Add '110 ±5°C (230 ±9°F)' in Step 7, remove (Aggregate Section) **Performance Exam Checklist:** - None **PowerPoint** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials*.	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
HUMPHRES	*Use of AKDOT & PF ATM 212, ITD 74, WSDOT TM 606, or WFLD Humphres Curve* <u>Proposed revisions to the training materials:</u> Now that WAQTC has developed *WAQTC TM 15, Laboratory Maximum Dry Density of Granular Soil and Soil/Aggregate,* and *WAQTC TM 20, Determination of Theoretical Maximum Dry Density of Granular Soil and Soil/Aggregate for Use as a Density Standard,* Desna proposed revising the discussion of the use of the Humphres curve and associated agency test methods in the training manual to a discussion of TM 15 and TM 20. Sean felt that this was confusing as we are not actually training and certifying on TM 15 and TM 20. He suggested that the revisions that Desna drafted be included in the *Basics of Compaction and Density Control.* The committee agreed. <u>Revisions to the training materials include:</u> - Removing the Student and Short forms - Including a discussion of TM 15 and TM 20 in *Basics of Compaction and Density Control.* *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 310	*FOP for AASHTO T 310, In-place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods* <u>There were no revisions to the training materials proposed before the meeting.</u> <u>Additional revisions:</u> Lori pointed out that the term 'probe' is inconsistent with test procedure terminology. 'Probe' and 'source rod' are used inter changeably in the method. She suggested that 'source rod' should replace 'probe' where it is used. The AASHTO also uses both terms. Misty Miner, MDT, reviewed manufacturer's information, and the term 'source rod' is used exclusively. The committee approved use of the term 'source rod' throughout. The committee also asked Desna to include the terminology usage in AASHTO T 310 on the 2021 Winter Meeting Agenda. <u>There are no revisions to the AASHTO method in 2020.</u>	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Revisions to the training materials include: **FOP:** - New date - Replace 'probe' with 'source rod' throughout **Performance Exam Checklist:** - New date - Replace 'probe' with 'source rod' throughout **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.* *AASHTO terminology will be included on the 2021 Winter Agenda.*	DESNA BERGOLD
T 355	*FOP for AASHTO T 355, In-place Density of Asphalt Mixtures by Nuclear Methods* There were no revisions to the training materials proposed before the meeting. There are no revisions to the AASHTO method in 2020. Other revisions: The terminology issue in the FOP for AASTHO T 310 also applies to this method. The same revisions are approved. Kevin Burns, WSDOT, pointed out that the AASHTO title has an 's' on Methods and the WAQTC FOP does not. The committee instructed Desna to make this correction. Revisions to the training materials include: **FOP:** - New date - Replace 'probe' with 'source rod' throughout - Add 's' to method in title **Performance Exam Checklist:** - New date - Replace 'probe' with 'source rod' throughout - Add 's' to method in title	

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	PowerPoint: - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.* *AASHTO terminology will be included on the 2021 Winter Agenda.*	DESNA BERGOLD
EXAMS	Lori indicated that there is a questionable point in a graph in Exam 2. This will be fixed. Chris Russell, CDOT, had requested revisions to a few questions for clarity. The committee reviewed the requested revisions and drafted some new language. *Committee members: refer to the exam errata for specific revisions.*	
CONCRETE (CTT)		
TM 2	*FOP for WAQTC TM 2, Sampling of Freshly Mixed Concrete* <u>Proposed revisions to the training materials:</u> Sean requested that the FOP define what a 'receptacle' is. The term is used throughout but not defined. There are wheelbarrows, buckets, and shovels listed in 'Apparatus.' He has seen technicians using a shovel as a receptacle, he feels that this is not an acceptable receptacle as it may contribute to segregation. The committee decided to define receptacle in 'Apparatus' as 'wheelbarrow, bucket or other suitable container that does not alter the properties of the material being sampled.' Desna asked if 'Wet Sieving' should be an Annex similar to other FOPs. The committee decided that including this section at the end of the procedure section was better. <u>Discussion item:</u> Desna asked if any of the agencies were interested in including an *FOP for AASHTO R 60, Sampling of Fresh Concrete* in the Concrete Testing Technician (CTT) qualification, some agencies now require AASHTO R 60. The committee decided that they were not in favor of including it in the qualification but that an FOP should be developed for the FOP library. The Executive Board will be asked to approve development of an FOP for	

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	AASHTO R 60 to be included in the FOP library. Kevin and Misty volunteered to start on it. <u>Revisions to the training materials include:</u> **FOP**: - Include 'receptacle' in 'Apparatus' and define - Replace 'sampling container' with receptacle throughout. **Performance Exam Checklist:** - Replace 'sampling container' with receptacle throughout. **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.* *Development of an FOP for AASHTO R 60 for the FOP library will be included on the Executive Board meeting agenda.*	DESNA BERGOLD
T 309	*FOP for AASHTO T 309, Temperature of Freshly Mixed Portland Cement Concrete* <u>Proposed revisions to the training materials:</u> WAQTC proposed that the statement concerning large aggregate requiring additional time for the temperature to stabilize be removed from the AASHTO test method. This statement was moved to 'Significance and Use' instead. As it is no longer a part of the procedural steps, the committee determined this statement can be removed from the FOP. <u>The 2020 AASHTO methods revisions:</u> The 2020 AASHTO method will be revised in Release 3 with a new revision date. Move the large aggregate statement into 'Significance and Use.' <u>Revisions to the training materials include:</u> **FOP**: - New date - Remove large aggregate statement **Performance Exam Checklist:** - None	

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	PowerPoint: - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 119	*FOP for AASHTO T 119, Slump of Hydraulic Concrete* <u>There are no revisions to the AASHTO method in 2020.</u> <u>Other revision</u> The Performance Exam Checklist uses the term 'slump cone,' the term 'mold' is used in the FOP. <u>Revisions to the training materials include:</u> **FOP**: - None **Performance Exam Checklist** (editorial)**:** - Replace 'slump cone' with 'mold' as in the FOP **PowerPoint:** - None *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 121	*FOP for AASHTO T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete* <u>Proposed revisions to the training materials:</u> While developing MDT's on-line training content, Misty found that the formatting of the FOP is awkward. In the FOP, the steps for filling the measure by the rodding method are complete through strike off and mass determination. Subsequent methods reference steps in the rodding method and do not include the steps. Misty proposed that all the steps to all the procedures be covered up to strike-off of the measure and the 'Strike off and Determining Mass' section follow them. The committee reworked some of the proposed revisions and approved. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Discussion item</u> The Performance Exam Checklist covers filling the measure by the rodding method. It does not address internal vibration or self-consolidating concrete (SCC). If committee members	

	would like to see these other methods included, we need to draft the revisions. The committee determined not to pursue revising the Performance Exam Checklist at this time. <u>Revisions to the training materials include:</u> **FOP:** - New date - Put 'Sampling' in procedure in its own section. - End the rodding method before strike-off and reference the 'Strike off and Determining Mass' section. - Include all the steps up to strike-off under 'Internal Vibration' - Include all the steps up to strike-off under SCC - Add a 'Strike off and Determining Mass' section developed from the original rodding section **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 152	*FOP for AASHTO T 152, Air Content of Freshly Mixed Concrete by the Pressure Method* <u>Proposed revisions to the training materials:</u> This FOP has the same formatting as the FOP for AASHTO T 121. Revisions will be made to match the approved revisions for the FOP for AASHTO T 121. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Revisions to the training materials include:</u> **FOP:** - New date - Put 'Sampling' in procedure in its own section. - End the rodding method before strike-off and reference the 'Strike off and Determining Mass' section. - Include all the steps up to strike-off under 'Internal Vibration' - Include all the steps up to strike-off under SCC	

	- Create the 'Strike off and Determining Mass' section from the original rodding section **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 23	*FOP for AASHTO T 23, Making and Curing Concrete Test Specimens in the Field* <u>There were no revisions to the training materials proposed before the meeting.</u> <u>There are no revisions to the AASHTO method in 2020.</u> *There are no revisions to this method for the 2020 Training Materials.*	
EXAMS	*There are no revisions to the exams for the 2019 training materials for this qualification.*	
AGGREGATE (AGTT)		
R 90	*FOP for AASHTO R 90, Sampling Aggregate Products* <u>Proposed revisions to the training materials:</u> Sean requested that Note 3 be removed. Note 3 states, 'Obtaining samples at stockpiles should be avoided whenever possible due to problems involved in obtaining a representative gradation of material.' As most agencies have requirements or allowances for sampling from stockpiles, he feels this statement weakens that position. The committee agreed. Sean also recommended revising Note 1 to reference Table 1 of the FOP for AASHTO T 11/T 27 instead of Table 2. Table 1 in the FOP for AASHTO T 11/T 27 was moved into an Annex. This was also approved. <u>There are no revisions to the AASHTO method in 2020.</u>	

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	Revisions to the training materials include: **FOP** (editorial)**:** - Revise Note 1 to reference the correct table in the FOP for AASHTO T 11/T 27 - Remove Note 3 **Performance Exam Checklist (both):** - None **PowerPoint:** - Revision to match FOP *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
R 76	*FOP for AASHTO R 76, Reducing Samples of Aggregate to Testing Size* Proposed revisions to the training materials: During the 2020 Winter Meeting, Desna was asked to draft the 'Mechanical Splitter Check' and its alternate as an Annex. Steve Taylor, ITD, had also recommended a slightly different method for the alternate method to the check. Desna had a graphic created from Steve's proposed method. While drafting these revisions, Desna noticed that the steps are in paragraph format. She drafted revisions to match the steps in the *FOP for AASHTO R 47, Reducing Samples of Asphalt Mixtures to Testing Size.* The committee determined that the splitter check or its alternate should be performed during all reductions by the mechanical splitter and should remain in the procedure and be included in the Performance Exam Checklist. They also decided to include the additional alternate check and label it Figure 2. The step revisions were approved. In 'Method Selection' it states that samples at saturated surface dry (SSD) or wetter than SSD are to be dried 'to the SSD condition' before reduction according to Method A. It was pointed out that the sample must be drier than SSD. The phrase 'to the SSD condition' will be removed. There are no revisions to the AASHTO method in 2020.	

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	Other revisions: Sean would like to revise the size of the canvas or plastic sheet; 6 by 9 ft. is quite large to use to reduce smaller samples. The committee agreed to revise the tarp size to read 'appropriate for the size of the material being reduced.' Kevin pointed out that the AASHTO method does not include an 's' after aggregate in the title. The training materials will be revised to correct this. Revisions to the training materials include: **FOP:** - New date - Remove the 'S' from aggregates in the title - Change tarp size to 'appropriate for the size of the material being reduced' - Remove 'to the SSD condition' in 'Method Selection' - Reformat 'Procedure' to a clearer 'step' procedure - Add Figure 2 **Performance Exam Checklist:** - Add Mechanical Splitter check step **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 255	*FOP for AASHTO T 255, Total Evaporable Moisture Content of Aggregate by Drying* Proposed revisions to the training materials: The committee approved revisions to match those in the FOP for AASHTO T 255/T 265. There are no revisions to the AASHTO methods in 2020. **FOP** (editorial): - Add M_W in Step 4 - Add M_D in Step 16 - Remove 'dry' from M_n in example	

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	Performance Exam Checklist: - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 27/T 11	*FOP for AASHTO T 27 /T 11; Sieve Analysis of Fine and Coarse Aggregates and Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing* <u>Proposed revisions to the training materials:</u> Another requested revision from a 'Materials Revision Request,' Step 12 of Method A says to place the 'washed' sample on the top sieve. Step 1 allows the sieve analysis to be performed without washing if washing is not required. The term 'washed' will be removed from this step and the corresponding steps in Methods B and C. It was also recommended that a reference to Annex B be included in Step 11 of Method A to reference the overloading of sieves. This will be added to this step and the corresponding steps in Methods B and C. Desna asked if WAQTC would like the Annexes swapped. The AASHTO method has labeled the overloading as Annex A and shaking time as Annex B. The committee decided this is not necessary. <u>Revisions to the 2020 AASHTO methods:</u> Both AASHTO methods were revised in 2020 and have new revision dates. AASHTO T 11 was revised to include the addition of the mechanical washer in 'Apparatus' and some guidelines for its use. The FOP will be revised to include a note on the use of the mechanical washer. AASHTO T 27 was revised to move the overloading section and the sieve shaking time to Annexes. This does not impact the FOP. <u>Revisions to the training materials include:</u> **FOP:** - New date	

	- New Note 2 discussing use of the mechanical washer in all Methods - Note renumbering - Adding a reference to Annex B in Step 11 of Method A - Removing the term 'washed' in Step 12 in Method A - Adding a reference to Annex B in Step 11 of Method B - Removing the term 'washed' in Step 12 in Method B - Adding a reference to Annex B in Step 3 of Method C - Removing the term 'washed' in Step 20 in Method C **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 335	*FOP for AASHTO T 335, Determining the Percentage of Fracture in Coarse Aggregate* <u>Proposed revisions to the training materials:</u> During the 2020 Winter Meeting, Steve indicated that the FOP is confusing because it states, 'Sieve the sample in accordance with the FOP for AASHTO T 27/ T 11 over the 4.75 mm (No. 4) sieve.' He felt this implies the sample must be washed. The committee considers that as it states, 'sieve the sample,' and the step is followed by Note 1 discussing when the sample may or may not require washing, the current FOP language is sufficient. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Other revisions</u> It was pointed out that in Step 6 it states, 'Resort the questionable particles.' The intent is to sort the questionable particles again. The committee agreed that the questionable particles should be 're-sorted.' A hyphen will be added editorially. <u>Revisions to the training materials include:</u> **FOP** (editorial)**:** - Change 'resort' to 're-sort' in Step 6	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Performance Exam Checklist: - Change 'resorted' in Step 6 to 're-sorted' **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 176	*FOP for AASHTO T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* <u>Proposed revisions to the training materials:</u> During The 2020 Winter Meeting it was discovered that the FOP sample size, after passing the material through the No. 4 sieve, does not agree with the sample size in the AASHTO method. The FOP sample size, 1000 to 1500 g, is double the size in the AASHTO, 500 to 750 g. The test is performed on a 3 oz. measuring tin full of material that is passed through the sample pile. The committee indicated that most of the WAQTC agencies perform two determinations per sample. Also, if the sedimentation time exceeds 30 minutes, three determinations must be run on the same material. The sample size in the AASHTO method would not be big enough to obtain that many tins full of representative material. Sean asked a technician in an ODOT lab to determine how many times the tin can be filled with a 500 to 750 g. sample. He later provided a spreadsheet with the information. Two types of material were used to fill the tins. The average mass in the tin for both materials was just under 130 g. It appears that if a sample needs to be re-run, new material will need to be prepared. The committee decided to table this revision for now. They also decided to include revisions to the AASHTO method on the 2021 Winter Meeting agenda. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Other revisions:</u> While reviewing the FOP, Desna proposed revising Step 1 to active voice. This was approved as an editorial revision.	

	Revisions to the training materials include: **FOP** (editorial)**:** - Revise Step 1 into active voice **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
EXAMS	*Committee members: refer to the exam errata for specific revisions.*	
ASPHALT (ASTT I AND II)		
R 97	*FOP for AASHTO R 97, Sampling ~~of~~ Asphalt Mixtures* Proposed revisions to the training materials: During the Winter meeting, the safety information on sampling behind the paver was discussed. It seemed odd that safety is addressed only for that method. It was decided to include an overall safety statement as well. Sean drafted the statement and presented it to the committee. The statement is approved and will be included in the 'Scope.' Sean also suggested labeling the windrow graphics with 'Windrow cross section' and 'Windrow side view.' This was approved. Sean withdrew his recommendations to label the graphics with figure numbers. During the Winter Meeting, Steve asked why the FOP limits Method 1 (Plate Method) to sampling material placed on untreated base. The AASHTO method says, 'grade or base.' Adding 'grade' to the title of Method 1 (Plate Method) is approved. Misty withdrew her recommendation to reverse the sentences in Step 2 of Method 1 (Plate Method). There are no revisions to the AASHTO method in 2020.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Other revisions Kevin pointed out that the AASHTO method does not use the word 'of' in the title. This will be revised in the FOPs. Revisions to the training materials include: **FOP:** - New date - Add overall safety statement in 'Scope' - Add labels to windrow graphics - Add 'grade' to Method 1 (Plate Method) title - Remove 'of' from FOP title **Review Questions** **Performance Exam Checklists:** **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
R 47	*FOP for AASHTO R 47, Reducing Samples of Asphalt Mixtures to Testing Size* Proposed revisions to the training materials: In 2019, reduction using the quartermaster splitter was removed from the FOP. Kevin has since found that some locations in WSDOT use the quarter master for initial reduction. He asked the committee if reduction by quarter master can be reintroduced to the FOP. Most of the committee members would prefer it stay out of the FOP. It was decided not to revise the FOP. There are no revisions to the AASHTO method in 2020. *There are no revisions for this method for the 2020 training materials.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 329	*FOP for AASHTO T 329, Moisture Content of Asphalt Mixtures by Oven Method* <u>Proposed revisions to the training materials:</u> Sean proposed removing Note 1 which reads: 'Note 1: For repeatability between laboratories, the preferred practice is to dry the sample at no less than 9° C (15° F) below the JMF mixing temperature.' Step 1 says to dry the sample at the job-mix formula (JMF) mixing temperature range and when that isn't available, dry at 163 ±14ºC (325 ±25ºF). All agreed Note 1 should be removed. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Revisions to the training materials include:</u> **FOP:** - New date - Remove Note 1 - Renumber remaining notes **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 308	*FOP for AASHTO T 308, Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method* <u>Proposed revisions to the training materials:</u> During the Winter Meeting, it was decided to propose adding a step to the AASHTO method to reset the internal balance before placing the sample and basket into the ignition furnace. This step should also be included in the FOP. The committee revised that statement for the FOP to read, 'Verify the furnace scale is reading zero, if not, reset to zero.' Steve emailed a few recommended revisions to this method. He pointed out that Step 13 does not include subtracting the	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	correction factor from the printed ticket, but it is included in the formula. Adding 'and the correction factor if not entered into the furnace controller' in Step 13 (new Step 14) is approved. Steve also recommended adding 'if allowed by the agency' where it states the asphalt binder content can also be calculated using Method B. The committee felt that this limits the use of the calculation, if the agency doesn't address it, the calculation cannot be used. Steve also requested that the allowance to use 'historical data' be removed from the Annex. This is approved. Dan asked that Table 1 in the FOP be revised to match the AASHTO method, specifically that the order of sieve size and sample size be reversed. The practice listing the largest sieve on top is common in the FOPs. This proposal was not approved. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Revisions to the training materials include:</u> **FOP:** - New date - Add step, 'Verify the furnace scale is reading zero, if not, reset to zero.' - Add 'and the correction factor if not entered into the furnace controller' in the new Step 14 - Other editorial revisions **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 209	*FOP for AASHTO T 209, Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures* <u>Proposed revisions to the training materials:</u> Kevin proposed quite a few revisions to this FOP. In 'Apparatus,' it states that the water bath is optional. The water bath is not optional for the bowl method. 'Optional for	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Pycnometer or Volumetric Flask Method' will be included after the water bath. The manometer and vacuum gauge do not have to be NIST traceable, this will be removed. Standardization of pycnometer and flask does not match the AASHTO method. Desna drafted the Annex for the FOP for AASHTO T 209 to match the AASHTO method. She also drafted revisions to the 'Standardization of pycnometer or volumetric flask' section to reference the Annex and to only read 'Standardization' as it now applies to the bowl also. She prepared a draft removing Steps 16A through 18A which was weighing the empty bowl during the procedure. These were approved. There are also requirements in 'Apparatus' in the AASHTO method that are not in the FOP. The balance or scale should be listed as 'meeting AASHTO M 321, Class G2.' Containers need to be capable of withstanding the full vacuum applied. The vacuum measurement device needs to be accurate to 0.1 kPa (1 mmHg) and 'thermometers' are 'thermometric devices' instead of 'Standardized liquid in glass, or electronic digital total immersion type.' A towel should also be listed in 'Appartus' as it is used in the procedure. These revisions were approved. During the Winter Meeting, Steve proposed revising the time that partial vacuum is applied to 15 min. ± 30 sec. in the AASHTO method. The Executive Board revised it to 15 ± 1 min. Desna pointed out that since the FOP can be stricter than the AASHTO, the FOP can be revised now. The committee decided to wait and see what happens with the AASHTO proposal. <u>The 2020 AASHTO methods revisions:</u> The 2020 AASHTO method will be revised in Release 3 with a new date, the addition of a weighted average when a sample is tested in two or more increments, and allowing the test to be performed on material obtained from the pavement after compaction (cores). Desna drafted revisions to 'Sample Preparation' Step 2 and added a weighted average section in 'Calculation.' The committee reviewed the draft and approved.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Desna asked if the FOP should include the use of cores. The committee decided not to include it at this time. <u>Other revisions</u> The committee discussed the Performance Exam Checklist and determined that it should include a question on the use of a standardized bowl or volumetric flask. 'Standardized container (bowl or pycnometer/volumetric flask)' will be added. Steps to weigh the empty bowl and determine the mass of the pycnometer/volumetric flask will be removed. The committee also decided to add a question to the Review Questions, 'Describe the standardization procedure for bowl and pycnometer/volumetric flask.' Replace the term 'flask' in Questions 3 and 4 with 'container and contents.' <u>Revisions to the training materials include:</u> **FOP:** - New date - Revisions in 'Apparatus' to match the AASHTO method - Add that the water bath is optional for the Pycnometer or Volumetric Flask Method - Add a towel in 'Apparatus' - Revise 'Standardization' section - Add weighted average in 'Sample Preparation' Step 2 - Remove steps to weigh the empty bowl in 'Procedure' - Revise 'Calculations: Bowl Procedure' for the standardized bowl - Revise averaging in 'Calculation' to weighted average - Include 'Standardization' annex **Review Questions:** - New date - Add describing the standardization of the containers **Performance Exam Checklist:** - New date - Add step on using a standardized container - Remove steps to weigh the empty bowl - Remove steps to determine the mass of the filled flask/volumetric flask	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	PowerPoint: - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
T 166	*FOP for AASHTO T 166, Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens* <u>Proposed revisions to the training materials:</u> Since WAQTC developed an FOP for AASHTO R 79 for the FOP library, it was decided that the steps for drying according to AASHTO R 79 should be removed and the 'FOP for AASHTO R 79' be added. Kevin asked that instead of stating that test specimens from the pavement 'will' be sampled by AASHTO R 67 it state 'may.' Desna reviewed the AASHTO method and found that it is silent on the sampling method and suggested removing the statement altogether. This was approved. <u>There are no revisions to the AASHTO method in 2020.</u> <u>Revisions to the training materials include:</u> **FOP:** - New date - Add 'sampled' in the first sentence of 'Test Specimens' - Remove sampling requirements for test specimens from pavement - Add drying according to the FOP for AASHTO R 79 in Methods A and B - Remove steps to dry according to AASHTO R 79 in both Methods A and B **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
R 66	*FOP for AASHTO R 66, Sampling Asphalt Materials* There were no revisions to the training materials proposed before the meeting. There are no revisions to the AASHTO method in 2020. *There are no revisions for this method to the 2020 training materials.*	
T 30	*FOP for AASHTO T 30, Mechanical Analysis of Extracted Aggregate* Proposed revisions to the training materials: Desna proposed adding 'mandatory information' to Annexes editorially. This has been approved. There are no revisions to the AASHTO method in 2020. Revisions to the training materials include: **FOP** (editorial)**:** - Add 'mandatory information' to Annex **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials*	DESNA BERGOLD
T 312	*FOP for AASHTO T 312, Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor* Proposed revisions to the training materials: Steve proposed switching Steps 8 and 9 by email. He indicated that most gyratory machines do not display the height until after the specimen is extruded. This was approved There are no revisions to the AASHTO method in 2020. Other revisions: Kevin recommended revising the title of this FOP to match the AASHTO Method, which starts with 'Preparing and	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Determining the Density of.' Desna pointed out that the FOP does not include density determination. The committee decided not to include the density determination but to revise the title. <u>Revisions to the training materials include:</u> **FOP:** - New date - Revising title to match the AAASHTO method - Switching Steps 8 and 9 **Performance Exam Checklist:** - None **PowerPoint:** - Revisions to match the FOP revisions *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
TM 13	*WAQTC TM 13, Volumetric Properties of Asphalt Mixtures* <u>There were no revisions to the training materials proposed before the meeting.</u> *There are no revisions for this method for the 2020 training materials.*	
EXAMS	Misty recommended arranging the sections of the written exams into the same order as the manual. This is approved. Dan pointed out that for Exams 2 and 3, the reformatting of the gradation table caused some of the masses to be in the wrong place. This did not affect the answers but should be fixed. This will be fixed. The calculations for the FOP for AASHTO T 209 bowl method need to be revised with the standardized bowl mass. Lori will provide the inputs. *Committee members: refer to the exam errata for specific revisions.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
GENERAL FILES		
	<u>Proposed revisions to the training materials:</u> Earlier in the year, Kevin and Desna had a discussion on the rounding section of 'Background on Measurements and Calculations.' The information on rounding numbers that end in 5 is not clear. Desna provided a copy of the information from an old textbook that helped clarify the requirements. The committee worked with the existing language and revised it to state, 'If the number being rounded is followed by exactly 5, followed by only zeroes, two possibilities exist...' Sean felt that the WAQTC manual should state how rounding will be handled in the training materials. The committee approved adding: 'When rounding numbers that are followed by exactly 5, follow agency guidelines. For the purpose of WAQTC training, if the number being rounded is followed by a 5, the number is increased by 1.' Dan suggested including the table of the module qualification requirements from the Annexes of the *Administration Manual* in the modules training materials. The committee decided that this is not necessary. Dan suggested changing 'equality' to 'equivalency' in the last bullet of the 'Objectives' section of the 'Preface.' This was approved. *The approved revisions will be included in the 2020 training materials.*	DESNA BERGOLD
LEARNING OBJECTIVES	Dan asked if the first sentence under 'Learning Objectives' in 'Course Objectives' which states, 'Instructional objectives for this course are,' is necessary. That is a lot of redundancy. The committee agreed it could be removed. Dan also recommended rewriting the objectives in active voice. Desna drafted the revision. The committee approved. *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
OTHER AASHTO REVISIONS		
R 67	*AASHTO R 67, Sampling of Asphalt Mixtures after Compaction (Obtaining Cores)* This AASHTO standard will be revised in Release Three to include an Appendix that describes removing cut aggregate from the outside of the core. There are other editorial revisions as well. *Discussion item, no further action required.*	
REVIEW ASSIGNMENTS		
REVISION REVIEW ASSIGNMENTS	The 2020 revision review assignments are: EB/DTT: Chris Russell and Dan Gettman General: Chris Russell and Lori Copeland Concrete: Gilbert Arredondo and Sharon Taylor Aggregate: Kevin Burns and Misty Miner Asphalt: Lori Copeland and Randy Mawdsley Administration Manual, RPIH, and AASHTO name change revisions: Sean Parker The committee members will review all the training materials: Student and Short form FOPs, Review Questions, Performance Exams, Written Exams, and PowerPoint presentations for the module they are assigned. Desna was asked to send friendly reminders every few days. Any corrections will be sent to Desna. *Desna will send the draft revisions out by Sept. 6th. Review deadline is Sept. 20th.* *Committee members will review the draft revisions of the modules assigned. Corrections will be sent to Desna.*	DESNA BERGOLD QAC MEMBERS
SELF-CONSOLIDATING CONCRETE TESTING TECHNICIAN (SCCTT) MODULE		
SCCTT	The committee approved the SCC module to be included in the 2020 Training materials. The qualification and its requirements will be added to the *Administration Manual* and the *Rights, Policies, and Information Handbook (RPIH)* which will be	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	presented to the Executive Board during the August meeting for approval. Desna was asked to email the committee the draft revisions to these documents for review. Qualification in Concrete Testing Technician (CTT) will be a prerequisite to the SCCTT qualification. The committee discussed how this will be handled. The expiry dates may be different. If the CTT is expired, a technician will not be able to perform testing on SCC either. Misty explained that she intends to use the same expiry date on the SCCTT as a technician's expiry date on CTT. *Desna Bergold will draft revisions to the* Administration Manual *and* RPIH *then send to the committee for a quick review.* *Sean Parker will present the revisions to the Executive Board.*	DESNA BERGOLD SEAN PARKER
BASICS	*Basics of Self-Consolidating Concrete (SCC)* This was approved during the meeting held May 12, 2020.	
T 347 / T 351	*FOP for AASHTO T 347, Slump Flow of Self-Consolidating Concrete (SCC)* and *FOP for AASHTO T 351, Visual Stability Index (VSI) of Self-Consolidating Concrete (SCC)* While reviewing the written exam, Lori could not find the answers to some of the questions. Desna explained that the answers to the questions related to definition and use of the method are in the 'Significance' section. Since Lori was referencing the short form, which does not include this section, she could not find the information. The written exams usually do not usually cover information from 'Significance.' Desna was asked to move the pertinent information into 'Scope' and move the definition of SCC into 'Significance.' Lori also recommended labeling all the Figures (pictures) with a description of what is being illustrated like Figures 7 and 8 are labeled. These were drafted. She also pointed out that the brackets in the example equations were inconsistent. This will be fixed. *These revisions to the training materials will be made.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
T 345	*FOP for AASHTO T 345, Passing Ability of Self-Consolidating Concrete by J-Ring* The information pertaining to definition and use of the method in 'Significance' will be moved to 'Scope.' The definition of SCC will be moved from 'Scope' to 'Significance.' Lori also pointed out some issues with the graphic of the J-Ring. Desna will get these fixed. The committee felt that the section on obtaining the height measurements was confusing. Only the heights inside and outside the J-Ring on each end of the bar can be measured without moving the bar. Desna drafted revision to include moving the bar after the height inside and outside the J-Ring on each end of the bar are measured. *These revisions to the training materials will be made.*	DESNA BERGOLD
TM 18	*WAQTC TM 18, Penetration Test for Static Segregation Resistance of Self-Consolidating Concrete (SCC)* The information pertaining to definition and use of the method in 'Significance' will be moved to 'Scope.' The definition of SCC will be moved from 'Scope' to 'Significance.' *These revisions to the training materials will be made.*	DESNA BERGOLD
TM 19	*WAQTC TM 19, Static Segregation of Self-Consolidating Concrete (SCC) Using the Column Method* The information pertaining to definition and use of the method in 'Significance' will be moved to 'Scope.' The definition of SCC will be moved from 'Scope' to 'Significance.' This is the only method without pictures, Gilbert will try to get some pictures and video by Sept. 1. *These revisions to the training materials will be made.* *Gilbert Arredondo will get pictures to Desna by Sept. 1.*	DESNA BERGOLD GILBERT ARREDONDO
APPENDIX	The appendix will include the Short forms from SCCTT as well as CTT. *No action necessary.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
POWERPOINT	Revisions to match the FOP revisions *These revisions to the training materials will be made.*	DESNA BERGOLD
AASHTO RE:SOURCE REVIEW OF WAQTC WRITTEN EXAMS	In 2019, the Executive Board approved review of the written exams for compliance with ASTM standards and to determine whether AASHTO re:source will accept WAQTC certification to meet these standards. At that time AASHTO re:source had decided to accept WAQTC certifications. Since then, AASHTO re:source has been reviewing all the certifications and would like to review the written exams. Desna will be meeting with Sonya Puterbaugh, AASHTO re:source, Liaison to the QAC, and presenting the written exams. The results of the review will be included on a spreadsheet used by AASHTO re:source evaluators for reference. Further reviews will only be necessary when the written exams are revised. After the review, Desna will share the results with the committee who will determine if and what revisions will be made, if necessary, to meet the requirements. Assignments may be made to develop new exam questions. *Sonya Puterbaugh will review the WAQTC written exams with Desna.*	SONYA PUTERBAUGH DESNA BERGOLD
FOP LIBRARY		
TM 14	*WAQTC TM 14, Asphalt Mixture Laboratory Prepared Test Specimen* This WAQTC TM is included in the FOP library and has been available on the website since October. Desna asked if there was any feedback. Sharon Taylor, NDDOT, says that they have been using the method as a reference. Lori isn't certain if they have begun using it. Sean hasn't heard anything negative. *Discussion item, no further action required.*	
T 84	*FOP for AASHTO T 84, Specific Gravity and Absorption of Fine Aggregate* Desna asked if this FOP is complete and ready to be included in the FOP library. It was pointed out that the Celsius temperatures	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	did not agree with the Fahrenheit in parentheses. The Fahrenheit is correct. The Celsius will be corrected. *The correction will be made, and the FOP included in the FOP library.*	DESNA BERGOLD
T 304	*FOP for AASHTO T 304, Uncompacted Void Content in Fine Aggregate* 'Mandatory information' will be added to the Annex editorially. *These revisions will be included in the 2020 training materials.*	DESNA BERGOLD
TM 15/ TM 17~~20~~*	*WAQTC TM 15, Laboratory Maximum Dry Density of Granular Soil and Soil/Aggregate* *WAQTC TM 17~~20~~*, Determination of Theoretical Maximum Dry Density of Granular Soil and Soil/Aggregate for Use as a Density Standard* The members of the committee that will be using this method and others who were available have been meeting to finish these test methods. Desna explained that there are still issues with the Excel spreadsheet. Although WSDOT unlocked the spreadsheet to allow removal of their logo, the macros and Visual Basic are still locked. This means that the form still contains WSDOT specific entry requirements. Dan indicated that AKDOT has a spreadsheet that may be more readily adapted. Sean asked where the entry information is obtained. Kevin and Randy said that they use a worksheet to document the information and then enter it into the spreadsheet. Sean recommended putting the worksheet in another tab in the spreadsheet. Kevin and Randy thought this was a good idea. They volunteered to put a worksheet together in either WSDOT's or AKDOT's spreadsheet and send it to Lori, Dan, and Aaron Coenen, FHWA, for review. Desna was asked to arrange a follow up meeting for the week of July 20. *TM 15 and TM 17~~20~~* will be included in the 2020 training materials.* *Randy Mawdsley and Kevin Burns will create a worksheet in the spreadsheet.* *Desna will arrange a Google.meet the week of July 20th.* *The spreadsheet with the worksheet will be complete by Sept. 1.*	RANDY MAWDSLEY KEVIN BURNS DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	*After the meeting, Desna discovered that 'TM 17' had not been used. As TM 20 has not been published yet, Sean decided TM 20 should be renamed TM 17.	
TM 16	*TM 16, Determining the Percentage of Flat and Elongated Particles in Coarse Aggregate* Desna explained that there is an editorial revision to this method. In one place it said, 'flat and elongates,' this will be corrected to read 'flat and elongated.' This revision is approved. *The correction will be made and included in the FOP library.*	DESNA BERGOLD
R 79	*AASHTO R 79, Vacuum Drying Compacted Asphalt Specimens* Revisions will be made to the draft FOP as those approved for the FOP for AASHTO T 166: add 'sampled' in the first sentence of 'Test Specimens,' remove sampling requirements for test specimens from pavement. *These revisions will be made, and the FOP included in the FOP library.*	DESNA BERGOLD
T 331	*AASHTO T 331, Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method* Revisions will be made to the draft FOP as those approved for the FOP for AASHTO T 166: add 'sampled' in the first sentence of 'Test Specimens,' remove sampling requirements for test specimens from pavement. *These revisions will be made, and the FOP included in the FOP library.*	DESNA BERGOLD
ADMINISTRATION MANUAL & RPIH	*WAQTC Administration Manual* and *Registration, Policies, and Information Handbook (RPIH)* <u>Revisions to the *Administration Manual* and *RPIH*</u> Desna suggested some revisions to the *Administration Manual* and *RPIH*. In Annex A, the 'Test Methods for Embankment and Base and In-place Density' table, T 99 and T 180 are listed separately but T 255/T 265 are listed together with a note that this is a combined test method. As T 99 and T 180 are also combined test methods, they should be listed the same way.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Desna also pointed out that the 'Test Methods' tables in Annex A do not list the test methods in the order that the manuals do. She thinks it would be cleaner to arrange them in the same order. These revisions were approved by the committee. The *Administration Manual* and *RPIH* have the same bulleted list as the 'Objectives' section of the preface in the manuals. The revision to change the last bullet was approved. Other revisions include the addition of a combined EBTT/DTT and the new SCCTT qualification modules and correction of some of the standards' titles as approved throughout the meeting. <u>Revisions to the *Administration Manual* and the *RPIH* include:</u> - Combine T 99 and T 180 into a single reference in the Annex A 'Test Methods' tables - Reorder the methods in the 'Test Methods' tables to be in the same order as the manuals - Revise the last bullet of the 'Objectives' section - Add EBTT/DTT combined qualification throughout - Add SCCTT qualification module throughout - Add 'Qualification Processes and Mandatory Test Methods' section for combined EBTT/DTT qualification - Add 'Qualification Processes and Mandatory Test Methods' section for SCCTT - Revise R 76 title to match the AASHTO method - Revise R 97 title to match the AASHTO method - Revise T 312 title to match the AASHTO method - Revise T 355 title to match the AASHTO method *These revisions will be drafted and Presented to the Executive Board for approval.*	DESNA BERGOLD SEAN PARKER
ALTERNATE LIMITED QUALIFICATION	During the Winter meeting, the committee discussed agency specific sampling and density qualifications. Some agencies offer qualifications for technicians that are on a project site that will be performing in-place density testing which may include sampling and other methods. Desna was asked to poll the member agencies and compile a list of additional qualifications and which practices and methods they include.	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Desna shared the list with the committee (attached). It appears that there isn't as much commonality as was expected. The committee decided to table this discussion. *Discussion item, no further action necessary.*	
ACTION ITEM FOLLOW UP		
T 27 AND T 30	*T 27, Sieve Analysis of Fine and Coarse Aggregates* *T 30, Mechanical Analysis of Extracted Aggregate* During the Winter Meeting, Sean explained that there is a Task Force being formed in TS 1c, *Aggregates*, to address sieving efficiency for large sieves. The current method does not address this. He also mentioned that there is a Task Force being formed in TS 2c, Asphalt-Aggregate Mixtures, to discuss cross-referencing or combining T 27 and T 30. Sean is on these Task Forces and says that although he has been in contact with Maria Knake, AASHTO re:source, there has been no movement on the Task Force. *Sean Parker will keep the committee posted on the Task Force activities.*	SEAN PARKER
T 113 REVISIONS FOR WINTER	*T 113, Lightweight Pieces in Aggregate* During the Winter Meeting, Sharon said the NDDOT uses AASHTO T 113 for aggregate that is used in asphalt mixtures and she thought NDDOT may want to draft revisions to T 113 for next year. Sharon informed the committee that NDDOT has decided not pursue revisions at the Winter Meeting. *Discussion item, no further action necessary.*	
T 176 FIGURES	*T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test* <u>Status of previous proposal</u> In 2019, WAQTC informed TS 1a that there were discrepancies in the description and figures for the apparatus. The 2019	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
	Annual Meeting minutes indicate that this would be discussed during the Midyear webinar which was held Jan. 23, 2020. Sean has been working on this with the New Jersey DOT Steward. They found that in some instances the description of the apparatus was correct and in other instances the figure is correct. Sean feels that they have a handle on it. Hopefully, the corrections will be on the COMP agenda. *Action item should be complete.*	
R 76	*R 76, Reducing Samples of Aggregate to Testing Size* During the Winter Meeting, Steve offered to draft an alternate reduction method like the 'apex method' in the AASHTO T 76 to be proposed to AASHTO. Misty indicated that she has drafted this alternate method. Misty will send it to Lori for comment. This will on the Agenda for the Winter Meeting. *An alternate reduction method for AASHTO R 76 will be an agenda item for the 2021 Winer Meeting.*	DESNA BERGOLD
T 315	*T 315, Determining the Rheological Properties of Asphalt Binder Using the Dynamic Shear Rheometer (DSR)* During the Winter Meeting, David Mariman, FHWA, proposed revisions to the Verification and Calibration section in Section 9.1. Upon further review of the method, it was determined that the equipment references are inconsistent and confusing. David, Sonya, and Kevin were going to try to work through the issues and present revisions next year. David is no longer FHWA's representative to the QAC, Aaron Coenen has replaced him. Sonya and Kevin are not interested in pursuing these revisions but are still willing to help if Aaron is intending to pursue them. *Desna will follow up with Aaron Coenen to determine if FHWA would like to move forward with a revision proposal to AASHTO T 315.*	DESNA BERGOLD

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
R 25	*R 25, Technician Training and Qualification Programs* Champions Sean Parker and Scott Nussbaum <u>Status of previous proposal</u> In 2015, WAQTC proposed revisions to R 25. The revisions included adding references to the Appendixes and corresponding references in the reference section, removing 'flexible' from Section 3.1, and adding 'subordinates' to Section 7.2, *Examination Controls and Integrity*. The 2015 proposed revisions were lost and were re-proposed in 2019. According to the COMP Annual Meeting minutes, the revisions should have been made by the TS Chair and are considered editorial. The revisions are not in the 2020 AASHTO Release 1. Scott Nussbaum, UDOT and WAQTC Treasurer, emailed Curt Turgeon, Technical Subcommittee (TS) 5c Chair, who indicated he will make the changes editorially. *No further action at this time.*	
REPORT FROM EXECUTIVE BOARD SPRING MEETING		
2020 STRATEGIC PLAN	The revision to the *2020 Strategic Plan* were not extensive. A section for '2019 Completed Items' was added. *No action necessary.*	
E&B AND IPD MODULES REVISION	The Executive Board approved the QAC proposal: • Publishing EBTT and DTT as separate manuals. • Including an EBTT/DTT combined written exam in the training materials • Including the combined qualification in the Administration Manual *These revisions will be made to the 2020 training materials and organizational documents.*	

TOPIC	Discussion / *Decision*	ACTION REQUIRED BY:
OTHER ITEMS		
COVID 19 RELATED DISCUSSION	Gilbert mentioned that UDOT is concerned about technicians traveling to Utah to get qualified as UDOT is one of the few agencies holding qualification courses and exams at this time. He said that UDOT decided for the time being they would only allow technicians to attend that were going to be working on UDOT projects. He asked how the other agencies were addressing this. No one else has had a similar issue. Misty mentioned that MDT is only qualifying MDT employees. ODOT is not restricting who comes to classes but they are limiting class size and using social distancing. *Discussion item, no further action required.*	
EXAMINATIONS	Gilbert indicated that UDOT's examinations have been bogged down by retests of the written exam and asked how others handle it. Both ODOT and WSDOT do not allow retests on the same day for individual FOP or module failure. Gilbert indicated that this is not always feasible in Utah because many technicians travel to the testing center from remote areas. Gilbert did indicate that if a technician fails the written exam twice, UDOT requires them to wait for 30 days before they can attend another course and exam. Kevin wanted to clarify that if a technician fails an individual FOP on the written test, they retest on just that FOP and need to get a minimum of 70 percent. A technician can only miss 1 question to pass but if they fail 2 FOPs initially, they can miss 3 questions total, just not all in the same FOP. All agreed that this is correct. *Discussion item, no further action necessary.*	
LOCATION OF UPCOMING MEETINGS	It is unknown if 'in person' meetings will be feasible in the coming year. The committee decided they would propose continuing with the interrupted schedule when 'in person' meetings are an option. The 2021 Winter Meeting will be held Jan. 25th through the 29th. If this meeting can be held in person, Reno NV will be proposed.	

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	The 2021 Summer Meeting will be held July 19th through the 23rd. If this meeting can be held in person, Farmington UT, the location originally planned for the 2020 Summer Meeting, will be proposed. If these meetings are not to be held 'in person,' they will be schedule as virtual meetings, and for the same hours this meeting. *No further action required at this time.*	

Agencies' Sampling Qualifications

AkDOT Sampling

- R 90, Sampling Aggregate Products
- R 76, Reducing Samples of Aggregate to Testing Size
- R 97, Sampling Asphalt Mixtures
- R 47, Reducing Samples of Asphalt Mixtures to Testing Size
- R 66, Sampling Asphalt Materials

UDOT Sampling, Reduction, and Density

- R 90, Sampling Aggregate Products
- R 97, Sampling Asphalt Mixtures
- R 66, Sampling Asphalt Materials
- UDOT Sampling Methods
- R 76, Reducing Samples of Aggregate to Testing Size
- R 47, Reducing Samples of Asphalt Mixtures to Testing Size
- UDOT Reduction Methods
- T 310, In-Place Density and Moisture Content of Soil and Soil Aggregate by Nuclear Methods
- T 355, In-Place Density of Asphalt Mixtures by Nuclear Method

WSDOT Sampling

- R 90, Sampling Aggregate Products
- R 97, Sampling Asphalt Mixtures
- R 66, Sampling Asphalt Materials

MDT Field Tech (MDT staff only)

- R 90, Sampling Aggregate Products
- R 76, Reducing Samples of Aggregate to Testing Size
- T 11/T 27, Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing and Sieve Analysis of Fine and Coarse Aggregates
- T 255/T 265, Total Evaporable Moisture Content for Aggregates and Laboratory Determination of Moisture Content of Soils
- T 310, In-Place Density and Moisture Content of Soil and Soil Aggregate by Nuclear Methods
- R 97, Sampling Asphalt Mixtures
- R 47, Reducing Samples of Asphalt Mixtures to Testing Size
- R 66, Sampling Asphalt Materials
- T 30, Mechanical Analysis of Extracted Aggregate

NDDOT

Aggregate Sampling

- R 90, Sampling Aggregate Products (equivalent)

Asphalt Sampling

- R 97, Sampling Asphalt Mixtures (equivalent)
- R 47, Reducing Samples of Asphalt Mixtures to Testing Size (equivalent)
- R 66, Sampling Asphalt Materials (equivalent)